1. (Currently amended) A method of reconstructing an image comprising:

extracting information corresponding to periodic pixels from ~~an array of pixels having an elemental image array of a three-dimensional object formed thereon~~ a plurality of arrays of pixels each having an elemental image array of a three-dimensional object formed thereon, each of said arrays of pixels defined by a plurality of arrays of lenses and a corresponding plurality of detectors; and

processing said information corresponding to said periodic pixels to reconstruct an image from a view angle of the three-dimensional object, said periodic pixels defining said view angle.

2. (Currently amended) A method of claim 1 further comprising:

extracting information corresponding to other periodic pixels from said ~~array~~ arrays of pixels; and

wherein said processing said information comprises processing information corresponding to said periodic pixels and said other periodic pixels to reconstruct the image from said view angle, said periodic pixels and said other periodic pixels defining said view angle.

3. (Original) The method of claim 2 wherein said periodic pixels are periodic horizontally and said other periodic pixels are periodic vertically.

4. (Currently amended) The method of claim 1 further comprising:

extracting information corresponding to other periodic pixels from said ~~array~~ arrays of pixels; and

processing said information corresponding to said other periodic pixels to reconstruct another image from another view angle of the three-dimensional object, said other periodic pixels defining said other view angle.

5. (Original) The method of claim 1 further comprising:

digital image processing the image to improve quality of the image.

6. (Original) The method of claim 5 wherein said digital image processing includes contrast enhancement or filtering.

7. (Original) The method of claim 1 further comprising recording the image that was reconstructed.

8. (Original) The method of claim 1 further comprising conveying the image that was reconstructed through a network.

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9. (Original) The method of claim 8 wherein the network comprises a local area network, wide area network, intranet, or Internet.

10. (Original) The method of claim 1 further comprising displaying the image that was reconstructed.

11. (Original) The method of claim 10 wherein said displaying comprises displaying with a liquid crystal display, a liquid crystal television, or an electrically addressable special light modulator.

12. (Original) The method of claim 1 wherein said processing said information comprises combining said information of spatially related said periodic pixels.

13. (Currently amended) The method of claim 1 further comprising:

conveying information corresponding to said ~~array~~ arrays of pixels through a network to a remote location;

wherein said extracting information comprises extracting information corresponding to said periodic pixels at the remote location; and

wherein said processing said information comprises processing said information corresponding to said periodic pixels to reconstruct the image at the remote location.

14. (Original) The method of claim 13 wherein the network comprises a local area network, wide area network, intranet, or Internet.

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)

18. (Cancelled)

19. (Cancelled)

20. (Cancelled)

21. (Cancelled)

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22. (Currently amended) A system for imaging a three-dimensional object, comprising:

an array of lenses positioned to receive light from the three-dimensional object to generate an array of images of the three-dimensional object;

a lens positioned to receive said array of images generated by said array of lenses;

a detector positioned to receive said array of images from said lens to generate digitized image information, said detector comprising arrays of pixels receptive to said array of images; and

a processor connected to said detector to process said digitized image information to reconstruct an image of the three-dimensional object, said processor processing said digitized information to extract information corresponding to periodic pixels from said arrays of pixels to reconstruct an image from a view angle of the three-dimensional object, said periodic pixels defining said view angle.

23. (Cancelled)

24. (Original) The system of claim 22 wherein said array of lenses comprises a micro-lens array.

25. (Original) The system of claim 22 wherein said array of lenses comprises an array of circular refractive lenses.

26. (Original) The system of claim 22 wherein:

said detector has an imaging area receptive to said array of images from said lens; and

said lens has a magnification factor sufficient to adjust said array of images when received at said detector to a size about a size of said imaging area of said detector.

27. (Original) The system of claim 22 wherein said detector comprises a charged couple device camera.

28. (Original) The system of claim 22 further comprising;

a two-dimensional display device connected directly or indirectly to said processor to display the image of the three-dimensional object.

29. (Original) The system of claim 28 wherein said two-dimensional display device comprises a liquid crystal display, a liquid crystal television, or an electrically addressable special light modulator.

30. (Original) The system of claim 28 wherein said two-dimensional display device is connected indirectly to said processor by a network.

31. (Original) The system of claim 30 wherein said network comprises a local area network, wide area network, intranet, or Internet.

32. (Original) The system of claim 30 wherein said two-dimensional display device is connected indirectly to said processor further by a remote processor connected to said network.

33. (Original) The system of claim 28 further comprising:

another array of lenses positioned to receive light from said two-dimensional display device.

34. (Original) The system of claim 22 wherein said processor process the image using digital image processing to improve quality of the image.

35. (Withdrawn) The system of claim 22 wherein:

said array of lenses comprises a plurality of arrays of lenses each positioned to receive light from the three-dimensional object to generate arrays of images of the three-dimensional object;

said lens comprises a plurality of lenses each positioned to receive a corresponding one of said arrays of images generated by said arrays of lenses;

said detector comprise a plurality of detector each positioned to receive said corresponding one of said arrays of images from said lenses to generate a plurality of corresponding said digitized image information; and

said processor connected to said detectors to process said plurality of corresponding said digitized image information to reconstruct the image of the three-dimensional object.

36. (Original) The system of claim 22 further comprising;

a plurality of two-dimensional display devices connected directly or indirectly to said processor to display the image of the three-dimensional object.

37. (Original) The system of claim 36 wherein said two-dimensional display devices comprise liquid crystal displays, liquid crystal televisions, or electrically addressable special light modulators.

38. (Original) The system of claim 36 wherein said two-dimensional display devices are connected indirectly to said processor by a network.

39. (Original) The system of claim 38 wherein said network comprises a local area network, wide area network, intranet, or Internet.

40. (Original) The system of claim 36 wherein said two-dimensional display devices are connected indirectly to said processor further by a remote processor connected to said network.

41. (Original) The system of claim 36 further comprising:

another plurality of arrays of lenses each positioned to receive light from a corresponding one of said two-dimensional display devices.

42. (Withdrawn) The system of claim 22 wherein said processor generates virtual image information of a virtual three-dimensional object, said processor combining said digitized image information and said virtual image information of the virtual three-dimensional object to provide combined image information; and

a two-dimensional display device connected directly or indirectly to said processor to display an image, in response to said combined image information, that is a combination of the image reconstructed of the three-dimensional object and an image of the virtual three-dimensional object.

43. (Withdrawn) The system of claim 42 wherein said two-dimensional display device comprises a liquid crystal display, a liquid crystal television, or an electrically addressable special light modulator.

44. (Withdrawn) The system of claim 42 wherein said two-dimensional display device is connected indirectly to said processor by a network.

45. (Withdrawn) The system of claim 44 wherein said network comprises a local area network, wide area network, intranet, or Internet.

46. (Withdrawn) The system of claim 44 wherein said two-dimensional display device is connected indirectly to said processor further by a remote processor connected to said network.

47. (Withdrawn) The system of claim 42 further comprising:

another array of lenses positioned to receive light from said two-dimensional display device.

48. (Withdrawn) The system of claim 22 wherein said processor generates virtual image information of a virtual three-dimensional object, said processor combining said digitized image information and said virtual image information of the virtual three-dimensional object to provide combined image information; and

a plurality of two-dimensional display devices connected directly or indirectly to said processor to display an image, in response to said combined image information, that is a combination of the image reconstructed of the three-dimensional object and an image of the virtual three-dimensional object.

49. (Withdrawn) The system of claim 48 wherein said two-dimensional display devices comprise liquid crystal displays, liquid crystal televisions, or electrically addressable special light modulators.

50. (Withdrawn) The system of claim 48 wherein said two-dimensional display devices are connected indirectly to said processor by a network.

51. (Withdrawn) The system of claim 50 wherein said network comprises a local area network, wide area network, intranet, or Internet.

52. (Withdrawn) The system of claim 48 wherein said two-dimensional display devices are connected indirectly to said processor further by a remote processor connected to said network.

53. (Withdrawn) The system of claim 48 further comprising:

another plurality of arrays of lenses each positioned to receive light from a corresponding one of said two-dimensional display devices.

54. (Cancelled)

55. (Cancelled)

56. (Cancelled)

57. (Cancelled)

58. (Cancelled)

59. (Cancelled)

60. (Cancelled)

61. (Cancelled)

62. (Cancelled)

63. (Cancelled)

64. (Cancelled)

65. (Cancelled)

66. (Withdrawn) An optical three-dimensional image projector, comprising:

a first array of lenses positioned to receive light from a three-dimensional object to generate an array of images of the three-dimensional object;

a first lens is positioned to receive said array of images generated by said first array of lenses;

a recording device positioned to receive said array of images from said first lens to record an image;

a light source for providing a light;

a beam splitter receptive to the image recorded and the light from said light source to provide a recovered image;

a second lens positioned to receive the recovered image; and

a second array of lenses positioned to receive the recovered image from the second lens and to project an image of the three-dimensional object.

67. (Withdrawn) The optical three-dimensional image projector of claim 66 wherein said recording device comprises an optically addressable special light modulator, a liquid crystal display, a photopolymer, a ferroelectric material, or a photorefractive material.

68. (Withdrawn) The optical three-dimensional image projector of claim 66 wherein said light source comprises an incoherent light source or a coherent light source.

69. (Withdrawn) The optical three-dimensional image projector of claim 66 wherein said light source comprises a laser.

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70. (Withdrawn) The optical three-dimensional image projector of claim 66 wherein said first and second arrays of lenses each comprises a micro-lens array.

71. (Withdrawn) The optical three-dimensional image projector of claim 70 wherein said micro-lens array comprises an array of circular refractive lenses.

72. (Withdrawn) The optical three-dimensional image projector of claim 66 wherein:

said first array of lenses comprises a plurality of first arrays of lenses each positioned to receive light from the three-dimensional object to generate arrays of images of the three-dimensional object;

said first lens comprises a plurality of first lenses each positioned to receive a corresponding one of said arrays of images generated by said first arrays of lenses;

said recording device comprises a plurality of recording devices each positioned to receive said corresponding one of said arrays of images from said first lenses to record the image.

73. (Withdrawn) The optical three-dimensional image projector of claim 72 wherein said recording devices comprise optically addressable special light modulators,

liquid crystal displays, photopolymers, ferroelectric materials, or photorefractive materials.

74. (Withdrawn) A three-dimensional imaging system, comprising:

a first array of lenses and a first display generates a first image of a three-dimensional object;

a second array of lenses and a second display generates a second image of the three-dimensional object; and

a beam splitter receptive to the first and second images to provide an integrated image of the three-dimensional object.

75. (Withdrawn) The system of claim 74 wherein:

said first array of lenses is positioned in front of said first display, whereby the first image is generated in front of said first array of lenses; and

said second array of lenses is positioned in front of said second display, whereby the second image is generated in front of said second array of lenses.

76. (Withdrawn) The system of claim 74 wherein:

said first array of lenses is positioned behind said first display, whereby the first image is generated behind said first array of lenses; and

said second array of lenses is positioned behind said second display, whereby the second image is generated behind said second array of lenses.

77. (Withdrawn) The system of claim 74 wherein:

said first array of lenses is positioned in front of said first display, whereby the first image is generated in front of said first array of lenses; and

said second array of lenses is positioned behind said second display, whereby the second image is generated behind said second array of lenses.

78. (Withdrawn) The system of claim 74 wherein:

said first array of lenses is positioned behind said first display, whereby the first image is generated behind said first array of lenses; and

said second array of lenses is positioned in front of said second display, whereby the second image is generated in front of said second array of lenses.

79. (Withdrawn) The system of claim 74 wherein:

said first array of lenses and said first display comprises a plurality of said first array of lenses and said first display positioned in a curved structure; and

said second array of lenses and said second display comprises a plurality of said second array of lenses and said second display positioned in a curved structure.

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80. (Withdrawn) A three-dimensional imaging system, comprising:

a plurality of arrays of lenses and an associated plurality of displays generate a corresponding plurality of images of a three-dimensional object; and

means for combining said plurality of images to provide an integrated image of the three-dimensional object.

81. (Withdrawn) The system of claim 80 wherein:

at least one of said arrays of lenses is positioned in front of at least one of said associated displays, whereby at least one of said images is generated in front of said at least one of said arrays of lenses.

82. (Withdrawn) The system of claim 80 wherein:

at least one of said arrays of lenses is positioned behind at least one of said associated displays, whereby at least one of said images is generated behind said at least one of said arrays of lenses.